# +++ Press Release +++

###### Innovation in Servomotor Feedback: Magnetic Kit Encoders from POSITAL Feature Multi-Turn Range with No Need for Backup Batteries

**Hamilton, NJ, November 2016** – POSITAL’s new family of kit encoders provide the manufacturers of servomotors and other machinery with rugged, accurate and cost-efficient tools for building rotary position measurements into their products. The new kit encoders are based on POSITAL’s highly successful self-contained magnetic rotary encoders. Now however, the core components of these instruments are available as separate assemblies that can be readily integrated into other products.

The POSITAL kit encoder components offer a number of advantages over the rotation measuring devices that have traditionally been used with servomotors and rotating equipment. Compared to resolvers, they are more accurate and offer multi-turn measurement capabilities. They also provide digital outputs instead of the analog signals produced by resolvers. While POSITAL’s magnetic encoder technology provides slightly less precision than the best optical disk encoders, it is less costly, less vulnerable to contamination from oil or dust and more resistant to shock and vibration. POSITAL encoders also provide an all-electronic multi-turn absolute position measuring capability that evaluates the full absolute angular position, including the total number of shaft rotations. The rotation counter is powered by the company’s well-proven Wiegand-effect energy harvesting technology so that rotation counts are always accurate, even if the rotations occur when external power is unavailable. This system eliminates the need for backup batteries or for the geared optical disks used in some products.

POSITAL magnetic kit encoders are easy to incorporate into normal manufacturing processes since they don’t require extra-precision, near-cleanroom assembly conditions. A built-in self-calibration capability can compensate for small sensor-to-shaft alignment errors. The electronic components, including Hall-effect sensors, a 32-bit microprocessor and the Wiegand-wire energy harvesting system, are packaged in a convenient 36 mm diameter, 24.2mm deep unit. For servomotors with magnetic brakes, a special magnetic shield has been developed to isolate the magnetic pickups of the measurement system from the external magnetic fields.

The resolution of the new POSITAL kit encoders is 17 bit, with an accuracy of better than + 0.1°. The operating temperature range is -40 to +105 °C. These devices are available with a variety of non-proprietary communications protocols, including BISS, SSI and RS485-based protocols.

**About FRABA and POSITAL**

POSITAL is a supplier of advanced industrial position sensors used in a wide variety of motion control and safety systems. The company is also an innovator in product design and manufacturing processes and a pioneer of Industry 4.0 (Industrial Internet of Things/IIoT), offering customers the benefits of built-to-order products combined with the price advantages of mass-production. POSITAL is a member of the international FRABA group, whose history dates back to 1918, when its predecessor, **Fr**anz **Ba**umgartner elektrische Apparate GmbH, was established in Cologne, Germany to manufacture relays. Since then, the company has played a trendsetting role in the development of rotary encoders, inclinometers and other sensor products. POSITAL has a global reach with subsidiaries in Europe, North America and Asia – and sales and distribution partners around the world.

###### Further Information

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Graphics:

File: PressPhoto#1.KitEncoder(POSITAL).jpg

Caption: The new Kit Encoders from POSITAL are based on proven magnetic technology. The electronic components, including Hall-effect sensors, a 32-bit microprocessor and the Wiegand-wire energy harvesting system, are packaged in a convenient 36 mm diameter, 24.2 mm deep unit.

File: PressPhoto#2.KitEncoder-Rendering.jpg

Caption: The compact Kit Encoders are easy to install into motor casings or other devices, with the shaft-mounted magnet providing a rotating magnetic field.